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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WALLACE, SCOTT A

ART UNIT

PAPER NUMBER

2671

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/866,949

Applicant(s)

DOCHERTY, PAUL

Examiner

Scott Wallace

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 7 is rejected under 35 U.S.C. 102(e) as being anticipated by Keller et al., U.S. Patent No. 6,141,622.
3. As per claim 7, Keller et al discloses a method for viewing seismic data having a plurality of dimensions associated therewith, said method comprising: a) presenting the seismic data in a multidimensional plan view (column 2 lines 24-30 and column 6 lines 54-65).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Etgen, U.S. Patent No. 6,049,759 in view of Keller et al., U.S. Patent No. 6,141,622.
3. As per claim 1, Etgen discloses a method for viewing seismic data comprising: a) generating a prestack seismic display having a plurality of CMP gathers, wherein each gather has constant spatial coordinates associated therewith (column 9 lines 15-20); b) for each CMP gather, defining a time or depth window around seismic data of interest (fig 8A). However, Etgen does not specifically disclose plotting said window in plan view using the spatial coordinates associated with said window to generate a multidimensional plan view. This is disclosed in Keller et al in column 2 lines 24-30 and column 6 lines 54-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to the plot in multidimensional views as in Keller et al with the system of Etgen because this would have enhanced identification of three dimensional changes in seismic character (column 6 lines 54-65).
4. Claims 5-6, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Etgen in view of Keller et al in further in view of Bancroft et al., U.S. Patent No. 5,596,547.
5. As per claim 5, Etgen in view of Keller et al discloses a method for viewing seismic data related to a lithologic structure comprising: a) generating a prestack seismic display having a plurality of prestack traces around a point of interest, wherein each prestack trace has a constant spatial coordinates associated therewith (column 9 lines 15-20); b) for each prestack trace, defining a time or depth window around seismic data of interest (fig. 8A); plotting said window in plan view using the spatial coordinates associated with said window to generate a multidimensional plan view (as seen above). However the combination of Etgen and Keller et al do not specifically disclose using poststack data. This is disclosed in Bancroft et al in column 1 lines 15-30. It would have been obvious one of ordinary skill in the art the time the invention was made to use poststack data instead of prestack data as in Bancroft et al with the

combination of Etgen and Keller et al because poststack was another common data set measured.

Prestack migration always had a corresponding poststack migration.

6. As per claims 6 and 9, Etgen discloses further comprising the steps of analyzing trends in the data segments by viewing multiple segments in spatial relationship to one another (column 9 lines 15-25).

***Allowable Subject Matter***

7. Claims 2-4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Scott Wallace** whose telephone number is **703-605-5163**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at 703-305-9798.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**


**(703) 872-9314 (for Technology Center 2600 only)**

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**Art Unit: 2671**

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA,  
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be  
directed to the Technology Center 2600 Customer Service Office whose telephone number is  
(703) 306-0377.

  
MARK ZIMMERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600